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In the same way, other alleged causes of neonatal death, such as atrophy, marasmus, and debility would, on close inspection, be found to be translatable into other medical terms and to represent other and much more definite morbid conditions.

Factors in Infantile Mortality.

Ballantyne gives the following summary of the factors involved in infant mortality:

(*a*) The antenatal factor, determined by placenta.
(*b*) The intranatal factor, injuries in child birth.
(*c*) The postnatal factor, the germ-laden environment.
(*d*) A complexity of causes.

The causes of antenatal death are comparatively simple in action and reach the unborn infant through the placenta. The fatality in such cases is largely decided by the state of that organ.

The causes of intranatal death are more complicated. They represent a noncompatibility between the child about to be born and the powers by which its birth is to be effected. The causes of intranatal death can, to a great degree, be anticipated, and in many cases they can be defeated by good obstetrics.

The causes of neonatal death are far more complicated and are much less easy to master either in the sense of understanding or combating them.

IMPORTANT PRECAUTIONS IN ADMINISTERING ARSPHENAMINE AND NEOARSPHENAMINE.

Experience has shown that the untoward results occasionally associated with the administration of arsphenamine are due in a large measure to the use of too highly concentrated solutions of the drug, to too rapid administration, and to insufficient care in rendering the solution slightly alkaline.

The reader, therefore, may be interested in studying the following instructions just issued to medical officers of the Public Health Service regarding the administration of arsephenamine and neoarsphenamine. Careful observance of the precautions here described will reduce the number of reactions from the use of these drugs.

GENERAL DIRECTIONS.

The ampule, before opening, should be immersed in 95 per cent alcohol for 15 minutes in order to detect any crack or aperture not primarily recognizable. (Should such a breach be discovered, the contents of the ampule should be discarded.)

Arsphenamine.

(1) *Solution.*—Cold, boiled, freshly distilled water should be used in all cases except in the case of "arsenobenzol" made by the Dermatological Research Laboratory, in which case hot water is required. No more solution should be prepared at one time than can be given in 30 minutes.

(2) *Neutralization and alkalinization of the above solution.*—With a graduated pipette or burette add 0.9 cc. of normal NaOH for each 0.1 gm. of the drug (i. e., 5.4 cc. for each 0.6 gm.). The alkali should be added all at once and should quickly convert the acid salt solution of arsphenamine into the alkaline salt solution, or the disodium of salt of the arsphenamine base. (The solution of arsenobenzol, which is hot, should be cooled before adding the alkali). This represents slightly more alkali than just enough to redissolve the precipitate formed by the addition of this reagent.

The alkali used should be standardized against normal acid. Normal NaOH is a 4 per cent solution of the c. p. product. However, if made on the basis of weight, it may be considerably less than this strength, hence the necessity for titration. It could be made up in amount sufficient for a month's use if kept in a well-stoppered bottle and exposed to the air for only a few seconds at a time when using the solution. It should be kept in a bottle that has been used for NaOH solution for some time, so that all action it causes in the glass will have occurred. Where it is impossible to have this made up at the station, it will be furnished upon request from the Hygienic Laboratory. Should the NaOH solution become cloudy or contain a precipitate, it should be discarded.

(3) *Concentration of the drug.*—It is desired to emphasize the fact that the concentration of the drug should not be greater than 0.1 gm. to 30 cc. of final solution. The practice of using concentrated solution is not only in direct conflict with the instructions on the circular, but carries a distinct hazard to the patient.

(4) *Method of injection.*—The gravity method only should be used. Where several patients are to be injected from the same solution, the container for the solution should be graduated. If not already graduated, this can be done in a few minutes by sticking on a strip of adhesive plaster and marking the graduations on this. A convenient way to do this is to have each mark represent 30 cc., with a long mark for each 180 cc.; then, if the volume is made up so that each 0.1 gm. of drug is contained in each 30 cc., the doses can be given accurately. It is a great convenience to have a glass stopcock near the glass tubing, which serves as a window just above the needle in order to control the rate of injection. If no stopcocks are at hand, the rate can be controlled by the size of the needle and the height of the column of fluid. A No. 18 or 20 B. & S. gauge is the best sized needle.

(5) *Rate of injection.*—Operators should pay particular attention to the rate of administration and in no case should it exceed 0.1 gm. of drug (30 cc. of solution) in two minutes. This point is especially emphasized because it is believed that excessive rapidity of administration accounts for more unfavorable results in the use of arsphenamine than any other one thing.

Neoarsphenamine.

The principal precautions to be observed in the administration of neoarsphenamine are:

(1) Only a single ampule should be dissolved at a time. This drug must not be dissolved in bulk to be given to a series of patients.

(2) Cold water only should be used.

(3) The dilution should be not stronger than 0.1 gm. of the drug in 2 cc. of freshly distilled water.

(4) A very small needle should be used, and the time of injection of the dose should not be less than five minutes.

THE JOURNAL OF INDUSTRIAL HYGIENE MAKES ITS BOW.

All engaged or interested in industrial hygiene have for some time felt the need of some special periodical devoted solely to this important branch of preventive medicine. This lack was the more regretted because it was realized that such a periodical would be of great value in promoting the development of industrial hygiene. It is a pleasure, therefore, to record the appearance of the initial number of the Journal of Industrial Hygiene, edited for the United States by David L. Edsall, and for Great Britain by A. F. Stanley Kent. The new journal is to be published monthly, one volume appearing in a year. The first number consists of two parts, of which the first or main part of 68 pages contains the following original articles:

Industrial Medicine and Surgery, A Résumé of its Development and Scope. By Henry E. Mock.

Lead Poisoning in American Industry. By Alice Hamilton.

The Problem of Fatigue. By Reynold A. Spaeth.

Telephone Operating: A Study of its Medical Aspects with Statistics of Sickness Disability Records.

The second part, containing 19 pages, consists of an Abstract of the Literature of Industrial Hygiene, the material being classified under 25 different headings and covering the entire domain of the subject.

The excellence of the articles in the first number is an earnest of those which are to come. Typographically, the Journal makes a fine appearance. The type is large and clear, and reading is still